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PATENT ABSTRACTS OF JAPAN(21) Application number: **10241193**(51) Intl. Cl.: **C01B 33/107**(22) Application date: **27.08.98**

(30) Priority: 27.08.9730.03.98 USUS 97 5770498 50141	(71) Applicant: DOW CORNING CORP
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TETRADECACHLOROCYCLOHEXASILANE-DIANION-CONTAINING COMPOUND

(57) Abstract:

PROBLEM TO BE SOLVED: To obtain a compd. for vapor deposition of an amorphous silicon film by bringing a metallic hydride reducing agent into contact with a tetradecachlorocyclohexasilane.dianion-contg. compd. obtd. by bringing a reagent compsn. comprising a tert. polyamine into contact with trichlorosilane.

SOLUTION: Trichlorosilane is reacted with a reagent compsn. comprising a tert. polyamine such as N,N,N',N'',N'''-pentaethyldiethylenetriamine(pedeta) in a molar ratio of (0.1:1) to (10:1) in a solvent such as dichloromethane, crystallization is carried out at \leq room temp. and a solvent such as pentane is added to deposit a tetradecachlorocyclohexasilane.dianion-contg. compd. represented by the formula $[\text{pedeta}.\text{SiH}_2\text{Cl}-1]_2[\text{Si}_6\text{Cl}_{14}-2]$. This compd. is reacted with a metallic hydride reducing agent such as AlH_4 in an org. solvent at -110 to $+150^\circ\text{C}$ to obtain cyclohexasilane. It is reacted with a Grignard reagent to obtain dodecaorganocyclohexasilane.

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